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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,847	06/19/2000	RONEN SANDER	MERCK-2114	4887

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EXAMINER
PAK, JOHN D

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/581,847	Applicant(s) SANDER
	Examiner John Pak	Art Unit 1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 9, 2002*

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *18-33* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *18-22 and 24-33* is/are rejected.

7) ☒ Claim(s) *23* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examine

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claims 18-33 are pending in this application.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/9/02 has been entered.

Claims 18-22, 24-29 and 31-33 are rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(1) Claims 18-22, 24-29 and 31 recite or read on methods and compositions wherein a "pearl luster pigment" is utilized. The broad use of this term is problematic with the exception of coated mica, which was the only category of pigments identified as pearl luster pigment in the originally filed disclosure (specification p. 4, lines 27-36).

Nowhere in the originally filed disclosure is there any mention of "pearl luster pigment" except in the case of coated mica. Applicant points to specification page 5, lines 32-34, but the disclosure there is the general "pearlescent or glitter properties." Pearlescent properties are not equivalent to pearl luster pigment. The disclosure at page 5 is not specific to pearl luster pigment, because applicant has established during the prosecution of this application that "pearl luster pigment" has a specialized meaning in the pigment art. The Pearl Lustre Pigments book by Maisch et al. (submitted by applicant) discloses the technical parameters of a pearl luster pigment (pp. 20-21).

Hence, "pearlescent or glitter properties" do not convey the specialized term "pearl luster pigment."

Further, the originally filed disclosure does not state that all pearl luster pigments are to be used for the practice of this invention. Rather, the originally filed disclosure discloses a wide variety of pigments and states only that coated mica is suitable and is marketed for use as pearl luster pigments. This is a far cry from disclosing that all other pearl luster pigments are to be used to protect plants from insects and insect-transmitted viruses, as presently claimed. The originally filed disclosure failed to reasonably convey the use of all pearl luster pigments.

In this regard, claims 22 and 29 are included here because BiOCl was not disclosed in the originally filed disclosure as a pearl luster pigment. If applicant can establish that BiOCl is in fact a pearl luster pigment, in the technical specialized sense, its supposed inherent properties would overcome this rejection with respect to claims 22 and 29.

(2) Claims 32-33 recite "interference pigment." Upon reconsideration and further review, the term "interference pigment" in any sense is deemed to be new matter which is without adequate support from the originally filed disclosure.

Applicant has established that the term "interference pigment" has a specialized meaning, i.e. beyond the ordinary meaning of a pigment that provides interference. See e.g., Paper No. 13 (9/5/02), page 4; Pearl Lustre Pigments book, pages 34-35. Said term was not used in the originally filed disclosure and nothing else in the specification sufficiently conveys its specialized meaning. Therefore, upon reconsideration of the record as a whole, "interference pigment" in any sense is deemed to constitute new

matter, which does not find adequate descriptive support from the originally filed disclosure.

Applicant's acceptance of an ordinary definition of "interference pigment" in Paper No. 18 (12/9/02) is noted; but upon reconsideration, it is the Examiner's determination that *any* subsequent use of the term without sufficient original descriptive support is defective. First, applicant's position with respect to which meaning (ordinary or specialized) is attributable to interference pigment has been contradictory. This is evidence that the skilled artisan would not have reasonably recognized the ordinary meaning as the appropriate scope of the term with respect to this invention. Second, while applicant has clearly established during the prosecution of this case that a specialized definition of said term exists, the original disclosure fails to specifically disclose "interference pigment," and moreover, fails to reasonably convey which of the ordinary or specialized definition of interference pigment is applicable. Therefore, applicant's use of a new term, interference pigment, without sufficient descriptive support from the originally filed disclosure lacks adequate descriptive support.

Claims 18, 22, 24, 31 and 32 are rejected under 35 USC 102(b) as being anticipated by Ishimaru et al. (JP 62-107737).

Ishimaru et al. explicitly disclose an insect repelling film made of a resin containing mica flakes coated with fine particles of titanium oxide (see claims 1-3). Use as a mulch for the ground for cultivating plants for repelling aphids, thrips and other harmful insects is disclosed (translation p. 4, see "Effect of the invention").

Instant claims require applying to at least one surface of a growing plant and optionally also to a background locus of a plant. It is the Examiner's position that applying a mulch as disclosed by Isimaru et al. meets this claim feature since mulch covers the nearby ground and the base of a plant. Instant claims require a pearl luster pigment and an agriculturally acceptable diluent, carrier or adjuvant. Ishimaru et al. disclose mica coated with titanium oxide carried on a resin, which is usable as a mulch. Applicant's claim language is readable on Ishimaru's mulch. As the most common and most well known form of titanium oxide is TiO_2, Ishimaru's titanium oxide disclosure immediately conveys TiO_2. Consequently, the claims are anticipated.

Claims 25, 26, 29 and 33 are rejected under 35 USC 102(b) as being anticipated by Kieser (US 4,986,853).

Kieser explicitly discloses mica pigment coated with titanium dioxide in solution with an acid and solvent (see Examples 1-8 on columns 3-4), mica pigment coated with iron oxide in solution with an acid and solvent (Examples 9-10 on column 4), and mica pigment coated with titanium dioxide + iron oxide in solution with an acid and solvent (Example 12 on column 4).

Even though Kieser does not explicitly state that his composition is specifically for protecting growing plants from insects and insect transmitted viruses, it is the Examiner's position that the instant claims are nonetheless readable on Kieser's compositions. MPEP 2112.01. Kieser's composition could function as a spray paint formulation for

application to plant stems, branches, trunks, etc. Consequently, the claims are anticipated.

Claims 25-29 are rejected under 35 USC 102(b) as being anticipated by Williams (US 5,300,127).

Williams explicitly discloses an aqueous suspension that contains titanium dioxide coated mica, vinyl pyrrolidone/vinyl acetate copolymer (adhesive polymer, see column 2, lines 50-65), a *Bradyrohizobium japonicum* inoculum. See Example 10 on column 10. Since the use is on plant seeds, agricultural safety is explicitly disclosed. Id. The inoculant improves the growth of plants (column 1, lines 14-32).

Even though Williams does not explicitly state that his agricultural composition is specifically for protecting growing plants from insects and insect transmitted viruses, it is the Examiner's position that the instant claims are nonetheless readable on Kieser's compositions. MPEP 2112.01. Kieser's composition could function as a sprayable formulation for application to growing plants. While Williams does disclose an additional ingredient, inoculant, which is not required by applicant's claims, there is nothing in applicant's claims that actually prohibits such an ingredient. Besides, the inoculant is a beneficial microorganism for plant growth, so its inclusion does not detract from Williams' disclosure. Consequently, the claims are anticipated.

Claims 25-27 and 29-30 stand rejected under 35 USC 102(b) as being anticipated by Ambrosius et al. (US 4,867,794) for the reasons of record and for the reasons set forth herein.

Ambrosius et al. explicitly disclose an aqueous suspension of mica coated with tin dioxide and titanium dioxide (see e.g., Examples 1-8 and claim 1; see also column 1, lines 6-12, column 3, lines 17-19).

Even though the cited reference does not explicitly state that the disclosed composition is specifically for protecting growing plants from insects and insect transmitted viruses, it is the Examiner's position that the instant claims are nonetheless readable on the disclosed composition. MPEP 2112.01. The disclosed composition could function as a spray formulation for application to plant parts. Consequently, the claims are anticipated.

Applicant's arguments relative hereto, filed in Paper No. 13 (9/5/02), have been given due consideration but they were deemed unpersuasive. The agriculturally acceptable diluent, carrier or adjuvant feature is met by Ambrosius' aqueous formulation. All that Ambrosius' composition needs to disclose is the same composition ingredients. If the same ingredients are in the prior art composition, the same function must be present. Here, Ambrosius' aqueous formulation could function as claimed. No suggestion or motivation to actually use the composition as applicant intends is required for a section 102 rejection. Applicant argues that the large amount of NaCl disclosed on column 3, lines 3-16 would mask the pearl luster pigment effect and harm plants. Such argument is only applicant's opinion, not based on any objective evidence. First, NaCl is not expressly

disclosed on Ambrosius' column 3, lines 3-16. Second, if applicant is referring to any NaCl that may result from the coating reaction, it is the Examiner's position that Ambrosius' explicit disclosures in Examples 1-8 and claims 1-9 do not demonstrate high levels of NaCl, i.e. levels that would mask the effect of titanium dioxide/tin dioxide coated mica and harm plants. Different plants respond differently to various applied formulations, and therefore, as long as some plant parts, such as tree trunks or aquatic plants, can be treated without harming them, Ambrosius' composition meets the claims. As for the asserted masking effect, the Examiner's position is that the claims are open to the use of surface active agents, adhesives, and various diluent, carrier and adjuvants. All such ingredients can't possibly have zero masking effect since any substance will have some effect on light absorbance, transmittance or reflection. In the absence of contrary evidence, the Examiner maintains that Ambrosius' composition would function as claimed, within the scope of the invention claimed, and the claims are thereby anticipated.

Claims 25-27 and 29 stand rejected under 35 USC 102(b) as being anticipated by Duschek et al. (US 5,472,491) for the reasons of record and for the reasons set forth herein.

Applicant's arguments relative hereto, filed in Paper No. 13, have been given due consideration but they were deemed unpersuasive. Applicant's arguments with respect to Duschek were combined with those for Ambrosius, and the Examiner's reasoning here is similar. Duschek et al. clearly and explicitly disclose a solution of Fe_2O_3 coated mica (Example 1, column 7) and TiO_2 (Example 2, column 8) in demineralized water. The

issues are even simpler here: water + same pearl luster pigment. None of applicant's arguments are persuasive here. The aqueous suspensions of the coated micas disclosed by Duschek et al. would necessarily possess the properties now claimed by applicant in his claims. Unlike Ambrosius, there is no issue with respect to NaCl. There is no need to "modify" anything in Duschek's disclosure because the demineralized water there serves as the agriculturally acceptable diluent, carrier or adjuvant that is suitable for agricultural applications. Consequently, the claims are anticipated.

Previous allowance of claim 22 is rescinded because of the newly found disclosure by Ishimaru et al.

Claim 23 is objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:00 AM to 4:30 PM. The telecopier numbers for accessing the facsimile machines are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Pak whose telephone number is (703) 308-4538. The Examiner can normally be reached on Monday through Friday from 7:30 AM to 4 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. José Dees, can be reached on (703) 308-4628.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1235.

JOHN PAK
PRIMARY EXAMINER
GROUP 1600